

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 26

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DENNIS P. POLLUTURO, THEODORE F. CYMAN,
KEVIN J. HOOK, ORRIN D. CHRISTY

Appeal No. 96-3146
Application 07/986,489¹

ON BRIEF

Before THOMAS, HAIRSTON and LALL, Administrative Patent Judges.

LALL, Administrative Patent Judge.

DECISION ON APPEAL

This appeal involves claims 1 through 20. Claims 1 through 4, 6, 8 through 17, 19 and 20 were rejected in the final rejection, and claims 5, 7, 18 and 19 were rejected in

¹ Application for patent filed December 7, 1992.

the examiner's supplemental answer. See also pages 3 and 4 of the supplemental answer for further explanation.

The disclosed invention is related to an erase unit for an ion deposition web-fed print engine. Specifically, the invention concerns the erase unit having two electrodes separated by a dielectric. One of the electrodes is located in a plenum chamber formed by the dielectric, the side walls and a back wall. The plenum chamber is located in opposition to the cylindrical surface of the image cylinder. An inert gas is introduced into the plenum chamber and a varying voltage is applied to the electrodes by applying a high-frequency and high-voltage signal from an AC source. Thusly produced ions in the plenum chamber are attracted by the residual image voltage on the image cylinder. Eventually, the residual potential on the image cylinder surface and the potential on the electrode in the plenum chamber equalize whereby the residual electrostatic potential of the image remaining on the cylinder surface is erased.

Representative Claim 1 is reproduced as follows:

1. In an electrostatic ion deposition printer including

an electrostatic print head for forming an electrostatic image, an image cylinder rotatable about an axis and having a dielectric layer for receiving the electrostatic image and means for transferring the image to a substrate, the combination with said printer of an erase unit for removing residual electrostatic potential of the image remaining on the image cylinder after the image has been transferred to the substrate, comprising:

a plenum having first and second electrodes disposed adjacent a surface of said image cylinder at a location in opposition thereto and to the residual electrostatic potential remaining on said image cylinder;

a dielectric disposed between said first and second electrodes;

means for introducing an inert gas in said plenum in a region adjacent said second electrode and between said dielectric and said image cylinder surface; and

circuit means for providing a time varying potential across said electrodes to ionize the gas in said region and enable substantial equalization of the residual potential on said image cylinder surface and the potential on said second electrode, whereby the residual electrostatic potential of the image remaining on the image cylinder after the image has been transferred to the substrate is removed.

The references relied on by the examiner are:

Ragland	4,357,618	Nov. 2, 1982
Maczuszenko et al. (Maczuszenko)	4,516,847	May 14, 1985
Kuehrle	4,792,860	Dec. 20, 1988
Miekka	4,918,468	Apr. 17, 1990
Torok	PCT/SE87/00595	Jun. 30, 1988

Appeal No. 96-3146
Application 07/986,489

A. Claims 1 through 4, 6, 8 through 17 and 20 stand rejected under 35 U.S.C. § 103 over Ragland in view of Miekka, Maczuszenko and Kuehrle. [Claim 19 was, by mistake, included in this rejection, but was withdrawn from this rejection and included in the new rejection in the supplemental examiner's answer; see final rejection, page 3, answer, page 2, supplemental answer, page 4].

B. Claims 5, 7, 18, and 19 stand rejected under 35 U.S.C. § 103 over Ragland in view of Miekka, Maczuszenko and Kuehrle as applied in the above rejection and further in view of Torok [supplemental answer, page 4].

Reference is made to the appellants' brief, reply brief, supplemental reply brief, and the examiner's answer and the supplemental answer for detailed positions of the appellants and the examiner.

OPINION

We have carefully considered the entire record before us, and we will reverse the obviousness rejection of claims 1 through 20.

A. Rejection of claims 1 through 4, 6, 8 through 17 and

20

With respect to independent claim 1, the examiner basically takes the position that Ragland shows the invention as claimed except that it does not show the inert gas being introduced in the space between the second electrode and the image cylinder, and the application of the time varying voltage to the electrodes. He contends that Miekka and Maczuszenko together go to teach the use of an inert gas between the electrodes to enhance the ion generation and to prolong the life of the electrodes in Ragland. He further offers the teachings of Kuehrle to apply the time varying potential to the electrodes in Ragland, [final rejection, pages 2-3].

The appellants argue that Ragland does not show the two electrodes as claimed, and the inert gas used in Miekka and Maczuszenko is not used in the operation of erasing an image in an erase unit. They further argue that the time varying potential shown in Kuehrle is also used for an entirely different purpose, namely, in the write operation, or in the

operation of creating an image, [brief, pages 5-8].

The examiner contends that as long as the claimed structure is shown by prior art, the rejection is valid. According to the examiner, the recitation of a function in a claim, without claiming the function as the "means" for the specified function, does not carry patentable weight. Also, the examiner is of the belief that it is equally without patentable weight when the same structure is labeled by a different name. Thus the examiner points to the structure of the write unit [emphasis ours], 47, of Ragland and identifies 56 and 59 of Ragland as the two claimed electrodes, [answer, pages 4-7, supplemental answer, page 5].

The appellants argue that there is no requirement under the statute that, to give a functional recitation patentable weight, it must be expressed as a means for performing the specified function, [reply brief, page 2].

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In

so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (CCPA 1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

As indicated by the cases just cited, the examiner has at least two responsibilities in setting forth a rejection under

Appeal No. 96-3146
Application 07/986,489

35 U.S.C. § 103. First, the examiner must identify all the differences between the claimed invention and the teachings of the prior art. Second, the examiner must explain why the identified differences would have been the result of an obvious modification of the prior art. In our view, the examiner has properly addressed his first responsibility, but has not met his second responsibility.

We agree with the appellants that the examiner's suggested combination of Ragland, Miekka, Maczuszenko and Kuehrle is not justified, and even if it were, still does not meet the claimed structure and the functional limitations of claim 1. As for example, one such limitation is contained in the last clause of claim 1, namely, "circuit means . . . equalization of the residual potential on said image cylinder . . . and . . . on said second electrode". As for the patentable weight to be given to a recitation of a function in a claim, it is well settled that there is nothing intrinsically wrong in defining something by what it does rather than by what it is, In re Hallman, 655 F.2d 212, 210 USPQ 609 (CCPA 1981). Here, there is sufficient structure in the claim to warrant the presence of the functional language.

There are two other independent claims among these claims.

Claim 17 is another apparatus claim and claim 11 is a method claim. Each of these claims contains a limitation corresponding to the limitation of claim 1 stated above. Thus, they are also not rendered obvious by the examiner's suggested combination of Ragland, Miekka, Maczuszenko and Kuehrle.

In view of the foregoing, the obviousness rejection of the independent claims 1, 11, and 17, and the dependant claims 2 through 4, 6, 8 to 10, 12 through 16, and 20, based on the teachings of Ragland, Miekka, Maczuszenko and Kuehrle is reversed.

B. Rejection of claims 5, 7, 18 and 19

The examiner rejected these claims in his supplemental answer under 35 U.S.C. § 103 as being obvious over Ragland in view of Miekka, Maczuszenko and Kuehrle as applied to claims under **A** above, and further in view of Torok, [supplemental answer, page 4].

Since Torok does not cure the deficiencies of the applied art in the rejection discussed in **A** above, the rejection of

Appeal No. 96-3146
Application 07/986,489

these claims also falls.

DECISION

The decision of the examiner rejecting claims 1 through
20 under 35 U.S.C. § 103 is reversed.

REVERSED

	JAMES D. THOMAS)	
	Administrative Patent Judge)	
)	
)	
)	
	KENNETH W. HAIRSTON)	BOARD OF
PATENT	Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
)	
)	
	PARSHOTAM S. LALL)	
	Administrative Patent Judge)	

Appeal No. 96-3146
Application 07/986,489

Nixon and Vanderhye
1100 North Glebe Road
8th Floor
Arlington, VA 22201-4714

PSL/ki